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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,369

08/06/2003

Paul S. Thompson

2924

32104 7590 12/12/2007  
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EXAMINER

ALI, SHUMAYA B

ART UNIT

PAPER NUMBER

3771

MAIL DATE

DELIVERY MODE

12/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/634,369

Applicant(s)

THOMPSON, PAUL S.

Examiner

Shumaya B. Ali

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 7/10/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7,9-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-13 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/19/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Status of Claims*

No amendment to claims is made in response to the office action mailed on 4/4/07.

Claims 8, 14, and 16-19 are previously cancelled. Currently claims 1-7, 9-13, and 15 are pending in the instant application.

### *Claim Objections*

Claim 3 is objected to because of the following informalities: in line 2, the recitation of "second said gas directing orifice" may be referring to orifice angles in the second plane toward each other. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Argraves US 6,298,850 B1.**

**As to claim 1**, Argraves in his specification and drawings discloses a nasal cannula assembly (see fig.3) designed for contact with the nasalabidial area of a patient's nose (as seen in figures 1 and 2) and comprising a hollow tubular member (20/25), having a central portion (15) of sufficient length to span the width of an average patient's nostrils (as seen in fig.1) and end portions extending from each end of said central portion (see fig.3), said central portion having a pair of spaced, hollow extensions (figure 3 shows two tubes terminating at orifice 13 and 17)

integral with and projecting therefrom said hollow extensions terminating in gas directing orifices (orifice 13 and 17) and which hollow portion of said extensions communicate with said hollow main body portion (10), said central portion lying in a first plane with longitudinal axes symmetrical about a midpoint (point at the center of 15) and forming an angle in said first plane less than 160 degrees (in col.3, lines 25-27 Argraves discloses the central portion has a bend forming a "v" or "u" shape structure, thus the claimed angle is inherent. "U" shaped makes a angle close to 45 degrees which is less than 160 degrees), each said hollow extension having a longitudinal axis projecting from said central portion at an arcuate angle (U at the main body forms acute angle, see fig.3) from said first plane, said gas directing orifices of said hollow extensions having a longitudinal axis lying in a second plane essentially parallel to and displaced from said first plane (see fig.3), said end portions of said central portion lying in essentially the first plane with longitudinal axis of said end portion essentially collinear with longitudinal axis of corresponding symmetrical half of said central portion (see fig.3), said end portion of said central portion laying in essentially the first plane with longitudinal axis of said end portion essentially collinear with longitudinal axis of corresponding symmetrical half of said central portion (see fig.3).

**As to claim 3**, Argraves in figure 3 shows cannula/hollow extension curves acutely to from a U-shaped structure, thus making each of the orifices to angle acutely toward each other.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Argraves US 6,298,850 B1.**

As to claim 2, Argraves lacks orifice size is less than .0006 inch. However, nasal cannula with small diameter orifice is known in the art. Furthermore, it would have been obvious to one of ordinary skill in the art to modify Argraves in order to provide the orifice size as claimed for the purposes of preventing laceration of soft tissue inside the nostril. Furthermore, certain medication requires jetting effect though small diameter nozzle/orifice to efficiently deliver medication a patient.

**Claims 4-7, and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Argraves US 6,298,850 B1 in view of Applicant's admission of prior art (see remarks filed on 7/10/07).**

As to claims 4-7, and 9-13, Argraves discloses a nasal cannula assembly (see fig.1-4) designed for contact with the nasalabidial area of a patient's nose (as shown in fig.2) comprising at least one main supply tube (20). Argraves further discloses a flexible supply tube (see col.2, lines 53 and 54). Argraves however lacks specific tensile modulus, shore hardness, compression, brittle temperature, and molecular weight of the supply tube as claimed. However, Applicant admits that "the tubing and the correct nosepieces have been around for at least ten years" (see page 11, lines 2-4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Argraves to provide the supply tubing structure as claimed because tubing structure as claimed is known to one of ordinary skill in the art, therefore,

substituting one supply tube for another would only involve routine skills in the art. One of ordinary skill in the art furthermore would be motivated to substitute Argraves' tube with a very soft supply tube (as render by the claimed tubing structure) for the purposes of providing a light weight nasal cannula assembly which is easier for user to carry or enhancing portability of the assembly.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-7, 9-13, and 15 have been considered but are moot in view of the new ground(s) of rejection.

With respect to claim 1 Applicant argues for cannula having a "vee" shape at the central potion, see remarks filed on 7/10/07 page 15, lines 25 and 26; however, the term "vee" is not supported by the claim.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ellman (2,763,263) pertain to nasal cannula with small diameter nozzle.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-W-F 8:30am-5:00 pm.

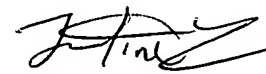
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Shumaya B. Ali  
Examiner  
Art Unit 3771

  
JUSTINE R. YU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700  
12/10/07